L12 ANSWER 20 OF 24 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1991:225196 CAPLUS
DOCUMENT NUMBER: 114:225196
TITLE: Polymer-coated noble metal particles, a method for their preparation, and their use
INVENTOR(S): Vinten, Joergen C. A.; Tranum-Jensen, Joergen
PATENT ASSIGNEE(S): Den.
SOURCE: PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9011128	A1	19901004	WO 1990-DK80	19900322
W: AU, BR, CA, FI, HU, JP, KR, NO, RO, SU, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, IT, LU, NL, SE				
AU 9053500	A1	19901022	AU 1990-53500	19900322
PRIORITY APPLN. INFO.:			DK 1989-1420	19890322
			WO 1990-DK80	19900322

AB Aq. colloidal solns. or particle dispersions are prepd. comprising noble metal particles substantially permanently encapsulated by a layer of a relatively inert org. polymer which in its free state is substantially water-sol. The substantial permanence of the encapsulation of the noble metal particles by the above polymer layers is due to the presence of covalent linkages formed between individual encapsulating mols. of the polymer. The colloidal particles of the prepd. solns. or dispersions may bear chem. reactive functionalities or side-chains covalently attached to the outer surface of the polymer layer. The functionalities on side chains can react with a chosen substance to form a covalent bond. The chosen substance is, e.g., an antigen, antibody, or protein G, which, while attached to the colloidal particles, can bind noncovalently to other species. The colloidal solns. or dispersions of the invention are useful as probes in electron microscopy, etc. Thus, a soln. of hydrated tetrachloroauric acid was reduced with NaBH4 to form a Au sol which was stabilized with gelatin. The gelatin coating was cross-linked and activated using glutaric dialdehyde, and protein G was covalently bonded to the particles. The prepd. particles and a monoclonal antibody against the carboxyl-terminus of the HepG2/erythroid glucose transporter were used to det. the no. of these transporter proteins by transmission electron microscopy. There was essentially quant. binding to the Au-contg. particles to the glucose transporter proteins. The electron micrograph is shown.

L57 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1991:602736 CAPLUS
DOCUMENT NUMBER: 115:202736
TITLE: Membrane affinity purification apparatus and its use in the purification of macromolecules of therapeutic value
INVENTOR(S): Goffe, Randal A.; Zale, Stephen E.; O'Connor, James L.; Kessler, Stephen B.; Cohen, Charles M.
PATENT ASSIGNEE(S): Sepracor, Inc., USA
SOURCE: PCT Int. Appl., 142 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
WO 9005018	A1	19900517	WO 1989-US4847	19891030	<--
W: AU, BB, BG, BR, DK, FI, HU, JP, KR, LK, MC, MG, MW, NO, RO, SD, SU					
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG					
CA 2001720	AA	19900430	CA 1989-2001720	19891027	<--
CA 2001720	C	20011002			
AU 8945247	A1	19900528	AU 1989-45247	19891030	<--
EP 483143	A1	19920506	EP 1989-912702	19891030	<--
EP 483143	B1	19940601			
EP 483143	B2	19970409			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
AT 106272	E	19940615	AT 1989-912702	19891030	<--
US 5310688	A	19940510	US 1993-35549	19930323	<--
US 5683916	A	19971104	US 1995-465479	19950605	<--

PRIORITY APPLN. INFO.:

US 1988-265061	A	19881031
US 1989-428263		19891026
US 1989-428263		19891026
US 1989-428263		19891026
US 1989-428263		19891026
US 1989-428263		19891026
EP 1989-912702	A	19891030
WO 1989-US4847	A	19891030
US 1990-487668	B1	19900302
US 1993-83859	B1	19930628

PI WO 9005018 A1 **19900517**

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI WO 9005018	A1	19900517	WO 1989-US4847	19891030	<--
W: AU, BB, BG, BR, DK, FI, HU, JP, KR, LK, MC, MG, MW, NO, RO, SD, SU					
RW: AT, BE, BF, BJ, CF, CG, CH, CM, DE, FR, GA, GB, IT, LU, ML, MR, NL, SE, SN, TD, TG					
CA 2001720	AA	19900430	CA 1989-2001720	19891027	<--
CA 2001720	C	20011002			
AU 8945247	A1	19900528	AU 1989-45247	19891030	<--
EP 483143	A1	19920506	EP 1989-912702	19891030	<--
EP 483143	B1	19940601			
EP 483143	B2	19970409			
R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE					
AT 106272	E	19940615	AT 1989-912702	19891030	<--
US 5310688	A	19940510	US 1993-35549	19930323	<--
US 5683916	A	19971104	US 1995-465479	19950605	<--

AB . . . are included. Cloning and expression of a bifunctional binding site protein (one domain binding digoxin and the other binding Ig **Fc** regions) are also described. Thus a polyether

sulfone/poly(ethylene oxide) hollow-fiber membrane was sequentially reacted with ethylene glycol diglycidyl ether and. . .

IT **122024-47-9**
RL: ANST (Analytical study)
(as domain linker, in multifunctional protein with digoxin binding site, for hollow-fiber affinity membrane prepn. for biomol. sepn.)

IT **122024-47-9**
RL: ANST (Analytical study)
(as domain linker, in multifunctional protein with digoxin binding site, for hollow-fiber affinity membrane prepn. for biomol. sepn.)

RN 122024-47-9 CAPLUS

CN L-Serine, glycylglycylglycylglycyl-L-serylglycylglycylglycylglycyl-L-serylglycylglycylglycylglycyl- (9CI) (CA INDEX NAME)

SEQ 1 GGGGSGGGGS GGGGS

L57 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1999:705041 CAPLUS
DOCUMENT NUMBER: 131:335809
TITLE: Anti-idiotypic antibody mimicking ganglioside GD2
INVENTOR(S): Chatterjee, Malaya; Foon, Kenneth A.; Chatterjee, Sunil K.
PATENT ASSIGNEE(S): The Board of Trustees of the University of Kentucky, USA
SOURCE: U.S., 74 pp., Cont.-in-part of U.S. 5,612,030. CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
US 5977316	A	19991102	US 1996-591196	19960116	
US 5612030	A	19970318	US 1995-372676	19950117	<--
CA 2210158	AA	19960725	CA 1996-2210158	19960117	<--
WO 9622373	A2	19960725	WO 1996-US882	19960117	<--
WO 9622373	A3	19961003			

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

JP 2002508651	T2	20020319	JP 1996-522432	19960117	
US 5935821	A	19990810	US 1996-752844	19961121	
US 6509016	B1	20030121	US 1999-293533	19990415	
US 2003114398	A1	20030619	US 2002-153401	20020521	

PRIORITY APPLN. INFO.:

US 1995-372676	A2	19950117	
US 1996-591196	A	19960116	
WO 1996-US882	W	19960117	
US 1996-752844	A1	19961121	
US 1999-293533	B1	19990415	

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI US 5977316	A	19991102	US 1996-591196	19960116	
US 5612030	A	19970318	US 1995-372676	19950117	<--
CA 2210158	AA	19960725	CA 1996-2210158	19960117	<--
WO 9622373	A2	19960725	WO 1996-US882	19960117	<--
WO 9622373	A3	19961003			

W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT, UA

RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG

JP 2002508651	T2	20020319	JP 1996-522432	19960117	
US 5935821	A	19990810	US 1996-752844	19961121	
US 6509016	B1	20030121	US 1999-293533	19990415	
US 2003114398	A1	20030619	US 2002-153401	20020521	

IT Immunoglobulins
RL: BOC (Biological occurrence); BSU (Biological study, unclassified); BIOL (Biological study); OCCU (Occurrence)
(fragments, **Fc**; of anti-idiotypic antibody for ganglioside GD2)

IT 64134-30-1 **122024-47-9** 206750-69-8 249574-50-3, PN:

US5977316 SEQID: 8 unclaimed protein 249574-54-7 249574-55-8
249574-57-0 249574-58-1 249574-60-5 249574-62-7 249588-21-4, PN:
US5977316 SEQID: 5 unclaimed protein 249588-25-8, PN: US5977316 SEQID: 7
unclaimed protein
RL: PRP (Properties)
(unclaimed protein sequence; anti-idiotypic antibody mimicking
ganglioside GD2)

IT **122024-47-9**
RL: PRP (Properties)
(unclaimed protein sequence; anti-idiotypic antibody mimicking
ganglioside GD2)

RN 122024-47-9 CAPLUS

CN L-Serine, glycylglycylglycylglycyl-L-serylglycylglycylglycylglycyl-L-
serylglycylglycylglycylglycyl- (9CI) (CA INDEX NAME)

SEQ 1 GGGGSGGGGS GGGGS

antibodies may be used to detect the presence of Fas in cell cultures and in **affinity** chromatography to purify Fas antigen. The **antibodies** also may be utilized in flow cytometry to sort Fas antigen bearing cells or to histochemically stain Fas antigen bearing cells. Briefly, in order to detect Fas antigen on cells, the cells are incubated with a labeled monoclonal **antibody** which specifically binds to Fas, followed by detection of the presence of bound **antibody**. These steps may also be accomplished with additional steps such as washings to remove unbound **antibody**. Labels suitable for use within the present invention are well known in the art including, among others, fluorescein isothiocyanate (FITC),. . . or HRP may be used. Particularly preferred for use in flow cytometry is FITC which may be conjugated to purified **antibody** according to the method of Keltkamp, Immunology, 18:865-873 (1970). See also Keltkamp, Immunol., 18:875-881 (1970); and Goding, J. Immunol. Methods, 13:215-226 (1970). For histochemical staining, HRP is preferred and may be conjugated to the purified **antibody** according to the method of Nakane and Kawaoi, J. Histochem. Cytochem., 22:1084-1091 (1974). See also Tijssen and Kurstak, Anal. Biochem., 136:451-457 (1984). The **antibodies** find further use as carriers for delivering cytotoxic agents attached thereto to Fas.sup.+ cells. Conjugates comprising a monoclonal **antibody** listed in Table 1 and a diagnostic or therapeutic agent attached to said **antibody** are provided herein.

L32 ANSWER 6 OF 6 USPATFULL on STN
ACCESSION NUMBER: 2002:69601 USPATFULL
TITLE: Tie2 agonist antibodies
INVENTOR(S): Holmes, Stephen D., Great Chishill, UNITED KINGDOM
Erickson-Miller, Connie L., Exton, PA, United States
Winkler, James D., Fort Washington, PA, United States
PATENT ASSIGNEE(S): SmithKline Beecham Corporation, Philadelphia, PA, United States (U.S. corporation)
SmithKline Beecham p.1.c., Brentford, UNITED KINGDOM (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6365154	B1	20020402	
APPLICATION INFO.:	US 1999-406532		19990927	(9)

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-102098P	19980928 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Housel, James
ASSISTANT EXAMINER: Winkler, Ulrike
LEGAL REPRESENTATIVE: Baumeister, Kirk, King, William T.
NUMBER OF CLAIMS: 27
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 1606
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
DETD Mice (F1 hybrids of Balb/c and C57BL/6) were immunised subcutaneously with recombinant Tie2 extracellular domain-**Fc fusion** in RIBI adjuvant and **boosted** with the same. Alternatively, mice were immunized using Tie2 receptor-**Fc fusion** DNA and **boosted** with protein in RIBI adjuvant. A splenectomy was performed 3-4 days following the final immunization. Mouse spleen cells were used. . .

L41 ANSWER 22 OF 23 USPATFULL on STN
ACCESSION NUMBER: 96:1557 USPATFULL
TITLE: CD30 ligand
INVENTOR(S): Goodwin, Raymond G., Seattle, WA, United States
Smith, Craig A., Seattle, WA, United States
Armitage, Richard J., Bainbridge Island, WA, United States
Gruss, Hans-Juergen, Bainbridge Island, WA, United States
PATENT ASSIGNEE(S): Immunex Corporation, Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 5480981		19960102		
APPLICATION INFO.:	US 1994-225989		19940412	(8)	<--

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1992-966775, filed on 27 Oct 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-907224, filed on 1 Jul 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-899660, filed on 15 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-892459, filed on 2 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889717, filed on 26 May 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Draper, Garnette D.
ASSISTANT EXAMINER: Spector, Lorraine M.
LEGAL REPRESENTATIVE: Anderson, Kathryn A.
NUMBER OF CLAIMS: 20
EXEMPLARY CLAIM: 1
LINE COUNT: 2694
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1994-225989 19940412 (8) <--
DETD To generate monoclonal antibodies against the human CD30 antigen, CB6F1 mice (purchased from Jackson Laboratories, Bar Harbor, ME) were **boosted** twice intradermally with 10 .mu.g CD30/Fc in Ribi adjuvant (Ribi Immunochem Research, Hamilton, Mont.). The soluble human CD30/**Fc fusion protein** employed as the immunogen was produced as described in example 1. One week after the second **boost**, peroxidase dot blot assays using CD30/Fc showed a significant (>1/100) liter of anti-CD30 antibody in the serum. One week later, animals were **boosted** intravenously (IV) with 3 .mu.g CD30/Fc into the tail vein. Three days later, spleen was removed and spleen cells were. . .

L41 ANSWER 23 OF 23 EUROPATFULL COPYRIGHT 2003 WILA on STN

PATENT APPLICATION - PATENTANMELDUNG - DEMANDE DE BREVET

ACCESSION NUMBER: 784093 EUROPATFULL EW 199729 FS OS
TITLE: Osteoprotegerin.
Osteoprotegerin.
Osteoprotegerin.
INVENTOR(S): Boyle, William J., 11678 Chestnut Ridge Street, Moorpark, California 93021, US;
Calzone, Frank J., 841 Rim Crest Circle, Westlake Village, California 91361, US;
Lacey, David L., 614 Paseo Vista, Thousand Oaks, California 91320, US;
Chang, Ming-Shi, 736 Calle Las Colinas, Newbury Park, California 91320, US
PATENT ASSIGNEE(S): AMGEN INC., Amgen Center, 1840 Dehavilland Drive, Thousand Oaks, CA 91320-1789, US
PATENT ASSIGNEE NO: 923233
AGENT: Brown, John David, FORRESTER & BOEHMERT Franz-Joseph-Strasse 38, 80801 Muenchen, DE
AGENT NUMBER: 28811
OTHER SOURCE: ESP1997040 EP 0784093 A1 970716
SOURCE: Wila-EPZ-1997-H29-T1a
DOCUMENT TYPE: Patent
LANGUAGE: Anmeldung in Englisch; Veroeffentlichung in Englisch
DESIGNATED STATES: R AT; R BE; R CH; R DE; R DK; R ES; R FI; R FR; R GB; R GR; R IE; R IT; R LI; R LU; R MC; R NL; R PT; R SE
PATENT INFO.PUB.TYPE: EPA1 EUROPAEISCHE PATENTANMELDUNG
PATENT INFORMATION:

PATENT NO	KIND	DATE
EP 784093	A1	19970716

'OFFENLEGUNGS' DATE: 19970716
APPLICATION INFO.: **EP 1996-309363** **19961220**
PRIORITY APPLN. INFO.: US 1995-577788 19951222
US 1996-706945 19960903

AI **EP 1996-309363** **19961220**
DETDEN Three New Zealand White rabbits (5-8 lbs initial wt) were injected subcutaneously with muOPG[22- 401]-**Fc fusion protein**. Each rabbit was immunized on day 1 with 50 .mu.g of antigen emulsified in an equal volume of Freunds complete adjuvant. Further **boosts** (Days 14 and 28) were performed by the same procedure with the substitution of Freunds incomplete adjuvant. Antibody titers were monitored by EIA. After the second **boost**, the antisera revealed high antibody titers and 25ml production bleeds were obtained from each animal. The sera was first passed. . . eluted protein was then dialyzed into PBS and passed over a Fc column to remove any antibodies specific for the **Fc** portion of the OPG **fusion protein**. The run through fractions containing anti-OPG specific antibodies were dialyzed into PBS.

L41 ANSWER 22 OF 23 USPATFULL on STN

L41 ANSWER 19 OF 23 USPATFULL on STN
ACCESSION NUMBER: 97:94361 USPATFULL
TITLE: Antibodies directed against CD30 ligand
INVENTOR(S): Goodwin, Raymond G., Seattle, WA, United States
Smith, Craig A., Seattle, WA, United States
Armitage, Richard J., Bainbridge Island, WA, United States
Gruss, Hans-Juergen, Bainbridge Island, WA, United States
PATENT ASSIGNEE(S): Immunex Corporation, Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 5677430		19971014		
APPLICATION INFO.:	US 1995-570923		19951212	(8)	<--

RELATED APPLN. INFO.: Division of Ser. No. US 1994-225989, filed on 12 Apr 1994, now patented, Pat. No. US 5480981 which is a continuation-in-part of Ser. No. US 1992-966775, filed on 27 Oct 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-907224, filed on 1 Jul 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-899660, filed on 15 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-892459, filed on 2 Jun 1992, now abandoned which is a continuation-in-part of Ser. No. US 1992-889717, filed on 26 May 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Chan, Christina Y.
ASSISTANT EXAMINER: Lubet, Martha T.
LEGAL REPRESENTATIVE: Anderson, Kathryn A.
NUMBER OF CLAIMS: 6
EXEMPLARY CLAIM: 1
LINE COUNT: 2637
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1995-570923 19951212 (8) <--
DETD To generate monoclonal antibodies against the human CD30 antigen, CB6F1 mice (purchased from Jackson Laboratories, Bar Harbor, Me.) were **boosted** twice intradermally with 10 .mu.g CD30/Fc in Ribi adjuvant (Ribi Immunochem Research, Hamilton, Mont). The soluble human CD30/**Fc fusion protein** employed as the immunogen was produced as described in example 1. One week after the second **boost**, peroxidase dot blot assays using CD30/Fc showed a significant (>1/100) liter of anti-CD30 antibody in the serum. One week later, animals were **boosted** intravenously (IV) with 3 .mu.g CD30/Fc into the tail vein. Three days later, spleen was removed and spleen cells were. . .

L41 ANSWER 20 OF 23 USPATFULL on STN
ACCESSION NUMBER: 97:47094 USPATFULL
TITLE: Protein tyrosine kinase agonist antibodies
INVENTOR(S): Bennett, Brian D., Pacifica, CA, United States
Goeddel, David, Hillsborough, CA, United States
Matthews, William, Woodside, CA, United States
PATENT ASSIGNEE(S): Genentech, Inc., South San Francisco, CA, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 5635177		19970603		
APPLICATION INFO.:	US 1994-222616		19940404	(8)	<--

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1992-826935, filed on 22 Jan 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Feisee, Lila
LEGAL REPRESENTATIVE: Lee, Wendy M.
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 61 Drawing Figure(s); 54 Drawing Page(s)
LINE COUNT: 1814
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1994-222616 19940404 (8) <--
DETD An HpTK5 extracellular domain (ECD)-human IgG.sub.1 **Fc** fusion gene was constructed and **fusion protein** produced as previously described (Bennett et al., J. Biol. Chem. 266:23060-23067 [1991]). Polyclonal antibodies were generated in New Zealand White. . . .mu.L PBS was emulsified with 100 .mu.L Freund's adjuvant (complete adjuvant for the primary injection and incomplete adjuvant for all **boosts**). For the primary immunization and the first **boost**, the protein was injected directly into the popliteal lymph nodes (Sig et al., Methods Enzymol. 93:3-12 [1983]). For subsequent **boosts**, the protein was injected into subcutaneous and intramuscular sites. 1.3 .mu.g protein/kg body weight was injected every 3 weeks with bleeds taken 1 and 2 weeks following each **boost**. HpTK5 specificity of the immunized rabbit serum was assessed by flow cytometric analysis of NIH3T3 cells transfected with full length. . .

L41 ANSWER 11 OF 23 USPATFULL on STN
ACCESSION NUMBER: 2002:126357 USPATFULL
TITLE: APOPTOSIS INDUCING MODECULE II
INVENTOR(S): EBNER, REINHARD, GAITHERSBURG, MD, UNITED STATES
YU, GUO-LIANG, DARNESTOWN, MD, UNITED STATES
RUBEN, STEVEN M., OLNEY, MD, UNITED STATES
ULLRICH, STEPHEN, ROCKVILLE, MD, UNITED STATES
PATENT ASSIGNEE(S): Human Genome Sciences, Inc. (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 2002064869	A1	20020530		
	US 6479254	B2	20021112		
APPLICATION INFO.:	US 1998-27287	A1	19980220	(9)	<--

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1997-822953, filed on 21 Mar 1997, ABANDONED

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-30157P	19961031 (60)
	US 1996-13923P	19960322 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: STRENE KESSLER GOLDSTEIN AND FOX, SUITE 600, 1100 NEW YORK AVENUE NW, WASHINGTON, DC, 200053934
NUMBER OF CLAIMS: 55
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 27 Drawing Page(s)
LINE COUNT: 4242
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1998-27287 A1 19980220 (9) <--
DETD [0305] Balb/cJ mice (The Jackson Laboratory, Bar Harbor, Me.) were immunized with LT.beta.R-**Fc fusion proteins** in Freund's adjuvant. Mice were **boosted** three times then the spleen cells were fused with the murine myeloma NS-1 cells in the presence of 50% polyethylene. . . 1 640/HAT and RPMI 1640/HT selective medra (Boehringer Co.). Supernatant from positive wells were tested for the ability to bind LT.beta.R-**Fc fusion protein**, but not human IgG1 by ELISA. Hybridomas producing antibodies against LT.beta.R-**Fc fusion protein** were cloned by limiting dilution three times. To produce large amount of mAbs, 10.sup.7 hybridoma cells were injected into pristane. . .

L41 ANSWER 16 OF 23 USPATFULL on STN
ACCESSION NUMBER: 1999:81543 USPATFULL
TITLE: Soluble lymphotoxin-.beta. receptors and anti-lymphotoxin receptor and ligand antibodies as therapeutic agents for the treatment of immunological disease
INVENTOR(S): Browning, Jeffrey L., Brookline, MA, United States
Benjamin, Christopher D., Beverly, MA, United States
Hochman, Paula S., Brookline, MA, United States
PATENT ASSIGNEE(S): Biogen, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 5925351		19990720		
APPLICATION INFO.:	US 1995-505606		19950721	(8)	<--

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Hutzell, Paula K.
ASSISTANT EXAMINER: Bansal, Geetha P.
LEGAL REPRESENTATIVE: Biogen, Inc., Flynn, Kerry A.
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1,15
NUMBER OF DRAWINGS: 7 Drawing Figure(s); 7 Drawing Page(s)
LINE COUNT: 1968
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1995-505606 19950721 (8) <--
DETD . . . prepared using conventional techniques by injecting animals such as goats, rabbits, rats, hamsters or mice subcutaneously with a human LT-.beta. receptor-**Fc fusion protein** (Example 1) in complete Freund's adjuvant, followed by **booster** intraperitoneal or subcutaneous injection in incomplete Freund's. Polyclonal antisera containing the desired antibodies directed against the LT-.beta. receptor are screened. . .
DETD . . . (mAbs) directed against the human LT-.beta. receptor were prepared by intraperitoneal immunization of RBF mice repetitively with a CHO cell-derived hLT-.beta.-R-**Fc fusion protein** attached to Protein A Sepharose beads in the absence of adjuvant. Animals were finally **boosted** with soluble hLT-.beta.-R-Fc, both i.p. and i.v., spleen cells were fused via classical protocols and hybridoma supernatants were screened by. . .

L31 ANSWER 42 OF 108 USPATFULL on STN
ACCESSION NUMBER: 2002:160537 USPATFULL
TITLE: Method for identifying compounds that inhibit or enhance activation of a transmembrane ligand for a receptor tyrosine kinase
INVENTOR(S): Holland, Sacha, Toronto, CANADA
Mbamalu, Geraldine, Toronto, CANADA
Pawson, Tony, Toronto, CANADA
PATENT ASSIGNEE(S): Mount Sinai Hospital Corporation, Toronto, CANADA (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6413730	B1	20020702	
	WO 9801548		19980115	
APPLICATION INFO.:	US 1999-214631		19990312	(9)
	WO 1997-CA473		19970704	<--
			19990312	PCT 371 date

	NUMBER	DATE
PRIORITY INFORMATION:	US 1996-21272P	19960705 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Spector, Lorraine
ASSISTANT EXAMINER: Landsman, Robert S.
LEGAL REPRESENTATIVE: Merchant & Gould P.C.
NUMBER OF CLAIMS: 5
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 12 Drawing Figure(s); 12 Drawing Page(s)
LINE COUNT: 1474
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AI	US 1999-214631	19990312 (9)	
	WO 1997-CA473	19970704	<--
		19990312 PCT 371 date	

DETD . . . v-Src. (FIG. 1C) Elk-L and Htk-L were expressed either alone or with v-Src in Cos-1 cells and immunoprecipitated with anti-ligand **antibody**. Upper panel: anti-phosphotyrosine blot; lower panel: anti-ligand blot (reprobe). (FIG. 1D) TM-ligands were expressed as in (FIG. 1C), precipitated using a Nuk extracellular domain IgG fusion protein (Nuk-Fc) as an **affinity** reagent, and immunoblotted with anti-phosphotyrosine serum. The band observed at .about.100 kDa represents cross-reaction of Nuk-Fc with the protein A-HRP. Methods: (FIG. 1B) v-Src was immunoprecipitated from v-Src transformed Rat-2 cells using an anti-Src monoclonal **antibody** (Oncogene Science) and immune complexes were incubated for 15 minutes at RT with 5 .mu.Ci of .sup.32P.gamma.ATP in Src-KRB.sup.26 alone. . . anti-ligand serum (raised against residues 326-343 of hElk-L, which also recognises Htk-L; Santa Cruz) or (FIG. 1D) 10 .mu.g of Nuk-**Fc fusion** protein.sup.11 plus protein A sepharose. Precipitated proteins were washed three times in HNTG.sup.2, separated on a 10% SDS-PAGE gel, transferred to PVDF membrane (Millipore) and immunoblotted with (FIG. 1C) monoclonal (4G10) or (FIG. 1D) polyclonal anti-phosphotyrosine **antibodies**. Detection was by Enhanced Chemiluminescence (Pierce). In (FIG. 1C) the filter was stripped using 0.1 M glycine pH 2.5 and. . .

L31 ANSWER 83 OF 108 USPATFULL on STN
ACCESSION NUMBER: 1998:131686 USPATFULL
TITLE: P-selectin ligand protein
INVENTOR(S): Larsen, Glenn R., Sudbury, MA, United States
Sako, Dianne S., Boston, MA, United States
Chang, Xiao-Jia, Newton Centre, MA, United States
Veldman, Geertruida M., Sudbury, MA, United States
Cumming, Dale, Acton, MA, United States
Kumar, Ravindra, Belmont, MA, United States
Shaw, Gray, Concord, MA, United States
Camphausen, Ray, Arlington, MA, United States
PATENT ASSIGNEE(S): Genetics Institute, Inc., Cambridge, MA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 5827817		19981027	
APPLICATION INFO.:	US 1995-477254		19950607 (8)	<--

RELATED APPLN. INFO.: Division of Ser. No. US 1995-428734, filed on 25 Apr 1995 which is a continuation-in-part of Ser. No. US 1994-316305, filed on 30 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-235398, filed on 28 Apr 1994, now abandoned which is a continuation-in-part of Ser. No. US 1993-112608, filed on 26 Aug 1993, now abandoned which is a continuation-in-part of Ser. No. US 1992-965662, filed on 23 Oct 1992, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Teng, Sally P.
LEGAL REPRESENTATIVE: Brown, Scott A., DesRosier, Thomas J.
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 42 Drawing Figure(s); 30 Drawing Page(s)
LINE COUNT: 2888
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1995-477254 19950607 (8) <--
DETD **Antibodies** raised against COS-produced soluble P-selectin ligand protein are immunoreactive with the major HL-60 glycoprotein that specifically binds P-selectin as determined by **affinity** capture using an immobilized **FC chimera** of P-selectin. U937 cells bear a similar immunoreactive glycoprotein ligand. Thus, a single glycoprotein species is observed upon EDTA elution. . . . under reducing conditions. As with the comparable species isolated from HL-60 cells, this U937 ligand is immunoreactive with a polyclonal **antibody** raised against COS recombinant P-selectin ligand protein. In addition, **affinity** capture of E-selectin ligands from U937 cell and cell membrane preparations, using an immobilized **Fc chimera** of E-selectin, yield a single major species with identical mass and electrophoretic behavior as the major U937 P-selectin ligand. Thus,. . . . and P-selectin recognize the same major glycoprotein ligand in U937 cells, a glycoprotein ligand immunoreactive with an anti-P-selectin ligand protein **antibody** and possessing the same apparent mass and electrophoretic behavior as full length, recombinant P-selectin ligand protein.

L31 ANSWER 77 OF 108 USPATFULL on STN
ACCESSION NUMBER: 1999:75761 USPATFULL
TITLE: Cytokine designated LERK-6
INVENTOR(S): Cerretti, Douglas P., Seattle, WA, United States
PATENT ASSIGNEE(S): Immunex Corporation, Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 5919905		19990706		
APPLICATION INFO.:	US 1997-920440		19970829	(8)	<--

RELATED APPLN. INFO.: Continuation-in-part of Ser. No. US 1995-538709, filed on 3 Oct 1995 which is a continuation-in-part of Ser. No. US 1994-318393, filed on 5 Oct 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Draper, Garnette D.
LEGAL REPRESENTATIVE: Henry, Janis C.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 1560
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1997-920440 19970829 (8) <--
DETD Example 3 describes the construction of a novel hek:**Fc fusion** protein that may be utilized in the screening for LERK-6. Other **antibody** Fc regions may be substituted for the human IgG1 Fc region described in the Example. Other suitable Fc regions are those that can bind with high **affinity** to protein A or protein G, and include the Fc region of human IgG1 or fragments of the human or. . . murine IgG1 Fc region, e.g., fragments comprising at least the hinge region so that interchain disulfide bonds will form. The hek: **Fc fusion** protein offers the advantage of being easily purified. In addition, disulfide bonds form between the Fc regions of two separate. . .
DETD Alternatively, hek/elk-binding proteins, such as LERK-6 and anti-hek/elk **antibodies**, can be bound to a solid phase such as a column chromatography matrix or a similar substrate suitable for identifying,. . . a hek/elk-binding protein to a solid phase contacting surface can be accomplished by any means, for example, by constructing a LERK-6: **Fc fusion** protein and binding such to the solid phase through the interaction of Protein A or Protein G. Various other means. . . thereon. Cells having hek/elk on their surface bind to the fixed LERK-6 and unbound cells then are washed away. This **affinity** -binding method is useful for purifying, screening or separating such hek/elk-expressing cells from solution. Methods of releasing positively selected cells from. . .

L31 ANSWER 55 OF 108 USPATFULL on STN
ACCESSION NUMBER: 2001:71681 USPATFULL
TITLE: Antibody immunoreactive with a human cytokine designated LERK-6
INVENTOR(S): Cerretti, Douglas P., Seattle, WA, United States
PATENT ASSIGNEE(S): Immunex Corporation, Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6232447	B1	20010515	
APPLICATION INFO.:	US 1998-173133		19981015 (9)	<--

RELATED APPLN. INFO.: Division of Ser. No. US 1997-920440, filed on 29 Aug 1997, now patented, Pat. No. US 5919905 Continuation-in-part of Ser. No. US 1995-538709, filed on 3 Oct 1995 Continuation-in-part of Ser. No. US 1994-318393, filed on 5 Oct 1994, now abandoned
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Draper, Garnette D.
LEGAL REPRESENTATIVE: Sughrue, Mion, Zinn, Macpeak & Seas, PLLC
NUMBER OF CLAIMS: 16
EXEMPLARY CLAIM: 1
LINE COUNT: 1373
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1998-173133 19981015 (9) <--
SUMM Example 3 describes the construction of a novel hek:**Fc fusion** protein that may be utilized in the screening for LERK-6. Other **antibody** Fc regions may be substituted for the human IgG1 Fc region described in the Example. Other suitable Fc regions are those that can bind with high **affinity** to protein A or protein G, and include the Fc region of human IgG1 or fragments of the human or. . . murine IgG1 Fc region, e.g., fragments comprising at least the hinge region so that interchain disulfide bonds will form. The hek: **Fc fusion** protein offers the advantage of being easily purified. In addition, disulfide bonds form between the Fc regions of two separate. . .
SUMM Alternatively, hek/elk-binding proteins, such as LERK-6 and anti-hek/elk **antibodies**, can be bound to a solid phase such as a column chromatography matrix or a similar substrate suitable for identifying,. . . a hek/elk-binding protein to a solid phase contacting surface can be accomplished by any means, for example, by constructing a LERK-6: **Fc fusion** protein and binding such to the solid phase through the interaction of Protein A or Protein G. Various other means. . . thereon. Cells having hek/elk on their surface bind to the fixed LERK-6 and unbound cells then are washed away. This **affinity** -binding method is useful for purifying, screening or separating such hek/elk-expressing cells from solution. Methods of releasing positively selected cells from. . .

L31 ANSWER 60 OF 108 USPATFULL on STN
ACCESSION NUMBER: 2000:134735 USPATFULL
TITLE: Viral encoded semaphorin protein receptor DNA and polypeptides
INVENTOR(S): Spriggs, Melanie K., Seattle, WA, United States
Comeau, Michael R., Seattle, WA, United States
DuBose, Robert F., Bellevue, WA, United States
Johnson, Richard S., Mercer Island, WA, United States
PATENT ASSIGNEE(S): Immunex Corporation, Seattle, WA, United States (U.S. corporation)

	NUMBER	KIND	DATE		
PATENT INFORMATION:	US 6130068		20001010		
APPLICATION INFO.:	US 1998-181706		19981028	(9)	<--

	NUMBER	DATE
PRIORITY INFORMATION:	US 1998-112009P	19981026 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Kemmerer, Elizabeth
ASSISTANT EXAMINER: Basi, Nirmal S.
LEGAL REPRESENTATIVE: Henry, Janis C., Jones, Simone L.
NUMBER OF CLAIMS: 9
EXEMPLARY CLAIM: 1
LINE COUNT: 2488
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AI US 1998-181706 19981028 (9) <--
SUMM As mentioned above, Example 1 describes the construction of novel viral A39R/**Fc fusion** proteins useful in studying VESPR binding. Other **antibody** Fc regions may be substituted for the human IgG1 Fc region described in the Example. Suitable Fc regions are those that can bind with high **affinity** to protein A or protein G, and include the Fc region of human IgG1 or fragments of the human or. . . IgG1 Fc region, e.g., fragments comprising at least the hinge region so that interchain disulfide bonds will form. The viral A39R: **Fc fusion** protein offers the advantage of being easily purified. In addition, disulfide bonds form between the Fc regions of two separate. . .
SUMM Alternatively, semaphorin binding proteins, such as VESPR or anti-semaphorin **antibodies**, can be bound to a solid phase such as a column chromatography matrix or a similar substrate suitable for identifying,. . . a semaphorin-binding protein to a solid phase contacting surface can be accomplished by any means, for example, by constructing a VESPR:**Fc fusion** protein and binding such to the solid phase through the interaction of Protein A or Protein G. Various other means. . . thereon. Cells having semaphorin on their surface bind to the fixed VESPR and unbound cells then are washed away. This **affinity**-binding method is useful for purifying, screening or separating such semaphorin-expressing cells from solution. Methods of releasing positively selected cells from. . .

L12 ANSWER 23 OF 24 BIOTECHDS COPYRIGHT 2003 THOMSON DERWENT/ISI on STN
ACCESSION NUMBER: 1990-01279 BIOTECHDS
TITLE: **Protein-A fusion** with **Fc** region of IgG; recombinant plasmid and host
PATENT ASSIGNEE: Sekisui-Chem.
PATENT INFO: JP 01060388 7 Mar 1989
APPLICATION INFO: JP 1988-110955 6 May 1988
PRIORITY INFO: JP 1988-110955 6 May 1988
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
OTHER SOURCE: WPI: 1989-318566 [44]
AN 1990-01279 BIOTECHDS
AB A gene encoding a region of **protein-A** for **fusion** with **Fc** comprises many associated amino acid sequences encoding the protein-A segment, a relatively short linker polypeptide linking these amino acid sequences, and amino acid sequences which have functional groups for attachment to solid supports added to N- or C-terminal amino acid sequences. These terminal regions allow the **fusion** of **protein-A** with the **Fc** region of IgG. The protein sequence and DNA sequence of the gene are provided. A recombinant plasmid containing the gene, a host (preferably Escherichia coli) transformed by the plasmid and a method for protein generation are claimed. Protein-A can be useful as an immunogenic adsorbent diagnosis, removing anti-prothrombin antibodies in hemophilia-B and antinuclear antibody in SLE, and for treatment of cancers. Modified recombinant protein-A can be produced with a high purification and yield avoiding the need for dangerous microorganisms such as Staphylococcus. (27pp)

L12 ANSWER 25 OF 29 MEDLINE DUPLICATE 12
ACCESSION NUMBER: 90332649 MEDLINE
DOCUMENT NUMBER: 90332649 PubMed ID: 2198570
TITLE: Serum half-life and tumor localization of a **chimeric antibody** deleted of the **CH2** domain and directed against the disialoganglioside GD2.
AUTHOR: Mueller B M; Reisfeld R A; Gillies S D
CORPORATE SOURCE: Department of Immunology, Research Institute of Scripps Clinic, La Jolla, CA 92037.
CONTRACT NUMBER: CA42508 (NCI)
SOURCE: PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA, **(1990 Aug)** 87 (15) 5702-5.
Journal code: PV3; 7505876. ISSN: 0027-8424.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199009
ENTRY DATE: Entered STN: 19901012
Last Updated on STN: 19901012
Entered Medline: 19900904

AB Recombinant techniques allow one to engineer an antibody molecule and, in this way, manipulate its properties and functions. We engineered a **chimeric** human/mouse **antibody** to the tumor-associated antigen ganglioside GD2, with the aim of decreasing its serum half-life, maintaining its full antigen-binding capacity, and deleting its effector functions, thus making it a potentially useful reagent for the radioimaging of tumors. To this end, the constant region of the human gamma 1 chain was mutated by deleting the second domain (**CH2**). Here we show that the **CH2**-deleted antibody (ch14.18-delta **CH2**) was cleared from the blood of athymic (nu/nu) mice bearing human melanoma tumors with the same kinetics as human IgG F(ab')2. At a beta t1/2 of 12 hr, 0.9% of the injected dose of 125I-labeled ch14.18-delta **CH2** was found per milliliter of blood 24 hr after i.v. injection. In biodistribution experiments, 125I-labeled ch14.18-delta **CH2** targeted specifically to melanoma xenografts, achieving optimal tumor-to-tissue ratios 12-16 hr after i.v. injection. ch14.18-delta **CH2** was localized to the melanoma tumors more rapidly and with better localization ratios than the intact **chimeric antibody** ch14.18. Sixteen hours after i.v. injection, the tumor-to-blood and tumor-to-liver ratios of ch14.18-delta **CH2** were 5 and 12, respectively, while optimal localization ratios obtained for ch14.18 were 1 and 5, respectively, but 96 hr after injection. A reagent such as ch14.18-delta **CH2** should be useful for radioimmunodetection of human tumors because of reduced immunogenicity, increased targeting specificity, and rapid clearance from circulation.

L12 ANSWER 27 OF 29 MEDLINE DUPLICATE 14

ACCESSION NUMBER: 91355698 MEDLINE
DOCUMENT NUMBER: 91355698 PubMed ID: 2129419
TITLE: Antigen binding and biological activities of engineered mutant chimeric antibodies with human tumor specificities.
AUTHOR: Gillies S D; Wesolowski J S
CORPORATE SOURCE: Damon Biotech, Inc., Needham Heights, MA 02194.
SOURCE: HUMAN ANTIBODIES AND HYBRIDOMAS, **(1990)** 1 (1) 47-54.
Journal code: A6A; 9014461. ISSN: 0956-960X.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199110
ENTRY DATE: Entered STN: 19911027
Last Updated on STN: 20000303
Entered Medline: 19911007

AB The constant region of the human gamma 1 chain was mutated either by deleting the second domain (**CH2**) or by mutating the two hinge region cysteine residues, normally involved in the inter-heavy chain disulfide bond formation, to serines. The effects of these mutations on chain assembly, antigen binding, complement-dependent cytotoxicity (CDC), and antibody-dependent cellular cytotoxicity (ADCC) were measured after expressing the human constant regions together with mouse variable regions encoding anti-tumor cell specificities. The **CH2**-deleted **chimeric antibody** was found to have increased antigen binding activity and little (ADCC) or no (CDC) biological activity. The cysteine to serine hinge region mutant antibody had normal or slightly reduced antigen binding activity, greatly reduced ADCC activity, and a reduced, but still significant, ability to mediate CDC. These results reflect the complexity of the interactions between the immunoglobulin domains and their role in balancing the antigen binding and effector functions of antibodies. They suggest further that such antibodies may be useful in applications, such as the in vivo imaging of tumors, where the loss of effector function (e.g., Fc receptor binding) is desired.

L12 ANSWER 24 OF 29 MEDLINE DUPLICATE 11

ACCESSION NUMBER: 91100773 MEDLINE
DOCUMENT NUMBER: 91100773 PubMed ID: 1702808
TITLE: Molecular analysis of IgM rheumatoid factor binding to chimeric IgG.
AUTHOR: Artandi S E; Canfield S M; Tao M H; Calame K L; Morrison S L; Bonagura V R
CORPORATE SOURCE: Department of Microbiology, College of Physicians and Surgeons, Columbia University, New York, NY 10032.
CONTRACT NUMBER: CA16858 (NCI)
SOURCE: JOURNAL OF IMMUNOLOGY, **(1991 Jan 15)** 146 (2) 603-10.
Journal code: IFB; 2985117R. ISSN: 0022-1767.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Abridged Index Medicus Journals; Priority Journals
ENTRY MONTH: 199102
ENTRY DATE: Entered STN: 19910329
Last Updated on STN: 19990129
Entered Medline: 19910219

AB To localize regions on IgG bound by rheumatoid factors (RF), we studied IgM RF binding to **chimeric** IgG **antibodies** consisting of murine V regions fused to human constant regions. Using a modified RF ELISA, we showed that polyclonal RF from rheumatoid arthritis patients bound IgG1, 2, and 4 strongly; IgG3 was also bound, although less well. The majority of 18 monoclonal RF from patients with Waldenstrom's macroglobulinemia bound IgG1, 2, and 4 only. In contrast to RF from RA, 14 of 18 monoclonal RF did not react with IgG3. Only 3 of 18 monoclonal RF bound IgG3 well. By shuffling C region domains between IgG3 and IgG4, we showed that sequence variation in the **CH3** domain is responsible for the differential binding of monoclonal RF to IgG3 and IgG4. Hybrid IgG3/IgG4 antibodies containing the **CH3** domain of IgG4 were bound by monoclonal RF, whereas those containing the **CH3** domain of IgG3 were not. To evaluate the contribution of the N-linked carbohydrate moiety at Asn-297 to RF binding sites on IgG, we measured RF binding to aglycosylated IgG antibodies produced by mutating Asn-297 to another amino acid. Glycosylated and aglycosylated IgG1, 2, and 4 were bound identically by monoclonal and polyclonal RF. Aglycosylated IgG3, however, was bound better than glycosylated IgG3 by polyclonal RF and by IgG3-reactive monoclonal RF.

L5 ANSWER 1 OF 5 MEDLINE
ACCESSION NUMBER: 1998418940 MEDLINE
DOCUMENT NUMBER: 98418940
TITLE: Characterization of a novel bispecific antibody that mediates Fcgamma receptor type I-dependent killing of tumor-associated glycoprotein-72-expressing tumor cells.
AUTHOR: Russoniello C; Somasundaram C; Schlom J; Deo Y M; Keler T
CORPORATE SOURCE: Medarex, Inc., Annandale, New Jersey 08801, USA.
SOURCE: CLINICAL CANCER RESEARCH, **(1998 Sep)** 4 (9) 2237-43.
Journal code: C2H. ISSN: 1078-0432.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199901
ENTRY WEEK: 19990104

AB A bispecific antibody was made by chemical **conjugation** of Fab' fragments from **humanized** antibodies specific for tumor-associated glycoprotein-72 (TAG-72) and high-affinity immunoglobulin receptor, FcgammaA receptor type I (FcgammaRI). The purified anti-TAG-72 x anti-FcgammaRI (HCC49xH22) bispecific antibody had an approximate Mr of 111,000, consistent with a **F(ab')**2, and bound specifically to KLEB and LS174T tumor cell lines, which express the TAG-72 tumor antigen. Furthermore, HCC49x H22 was shown to simultaneously bind to KLEB cells and a soluble FcgammaRI fusion protein, demonstrating the bifunctional nature of the molecule. Using IFN-gamma-treated monocytes as effector cells, concentrations of the bispecific antibody in the range of 1-10,000 ng/ml mediated specific lysis of TAG-72-positive tumor cells. In contrast, the bispecific antibody did not promote antibody-dependent cellular cytotoxicity of a cell line that was negative for TAG-72 antigen. Importantly, the antibody-dependent cellular cytotoxicity activity of the bispecific antibody was significantly greater than that of the monoclonal antibody HCC49. These in vitro data indicate that the **humanized** bispecific antibody HCC49xH22 has the appropriate specificity and functional activity for further evaluation as potential immunotherapy for TAG-72-positive malignancies.

This article has been cited by other articles:

- Hoedemaeker, F. J., Signorelli, T., Johns, K., Kuntz, D. A., Rose, D. R. (1997). A Single Chain Fv Fragment of P-glycoprotein-specific Monoclonal Antibody C219. DESIGN, EXPRESSION, AND CRYSTAL STRUCTURE AT 2.4 A RESOLUTION. *J. Biol. Chem.* 272: 29784-29789 [Abstract] [Full Text]

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L7 ANSWER 7 OF 8 MEDLINE
ACCESSION NUMBER: 90199789 MEDLINE
DOCUMENT NUMBER: 90199789 PubMed ID: 1690598
TITLE: Epitope mapping and use of anti-idiotypic antibodies to the
L6 monoclonal anticarcinoma antibody.
AUTHOR: Hellstrom K E; Yelton D E; Fell H P; Beaton D; Gayle M; MacLean M; Kahn M; Hellstrom I
CORPORATE SOURCE: ONCOGEN, Seattle, Washington 98121.
SOURCE: CANCER RESEARCH, **(1990 Apr 15)** 50 (8) 2449-54.
Journal code: CNF; 2984705R. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199005
ED Entered STN: 19900601
Last Updated on STN: 19960129
Entered Medline: 19900503

AB **Mouse** monoclonal **anti-idiotypic** antibodies (anti-ids) were raised against L6, a murine IgG2a monoclonal antibody specific for a cell surface antigen expressed by many human carcinomas. Ten distinct anti-ids were generated. Eight anti-ids were shown to inhibit the binding of L6 to its target antigen and were characterized in detail. The heavy and light chain variable region gene segments of the monoclonal antibody L6 linked to human constant regions (**chimeric** L6) were expressed separately or together, to map the epitopes recognized by the anti-ids. Individual anti-ids were shown to recognize heavy chain, light chain, or combinatorial variable region determinants. Defining these specificities enabled us to select particular anti-ids for assays to monitor the pharmacokinetics of either murine or **chimeric** L6 antibodies in the circulation of human patients. A quantitative enzyme-linked immunosorbent assay developed with two anti-ids accurately detects less than 5 ng/ml. Anti-ids specific for light chain variable region-encoded determinants were capable of recognizing L6 antigen-binding fragments bound to the surface of human carcinoma cells. These anti-ids can be used to study the binding of **chimeric** L6 antibody at the surface of tumor cells in histological sections of tumor biopsies.

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L7 ANSWER 5 OF 8 MEDLINE
ACCESSION NUMBER: 92200369 MEDLINE
DOCUMENT NUMBER: 92200369 PubMed ID: 1348012
TITLE: Production and characterization of a murine/human chimeric anti-idiotype antibody that mimics ganglioside.
AUTHOR: Hastings A; Morrison S L; Kanda S; Saxton R E; Irie R F
CORPORATE SOURCE: Department of Surgical Oncology, School of Medicine, University of California, Los Angeles 90024.
CONTRACT NUMBER: CA12582 (NCI)
CA16858 (NCI)
CA42396 (NCI)
+
SOURCE: CANCER RESEARCH, **(1992 Apr 1)** 52 (7) 1681-6.
Journal code: CNF; 2984705R. ISSN: 0008-5472.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
OTHER SOURCE: GENBANK-L01279; GENBANK-S72766; GENBANK-S72767; GENBANK-S72768; GENBANK-S72769; GENBANK-S72771; GENBANK-S85680; GENBANK-X63098; GENBANK-X66204; GENBANK-X66205
ENTRY MONTH: 199204
ED Entered STN: 19920509
Last Updated on STN: 19950206
Entered Medline: 19920428

AB The VL and VH from a **murine anti-idiotypic** antibody that mimics ganglioside have been cloned, sequenced, and expressed as a **chimeric** mouse/human IgG1 antibody. The **chimeric** antibody retained a binding specificity indistinguishable from the original murine antibody. The VH was a member of Vgam 3.8 family.

The sequences are discussed in terms of ways in which proteins may mimic ganglioside epitopes.

L3 ANSWER 17 OF 17 MEDLINE DUPLICATE 7
ACCESSION NUMBER: 93162699 MEDLINE
DOCUMENT NUMBER: 93162699 PubMed ID: 1286868
TITLE: Theoretical and practical aspects of **antigenized antibodies.**
AUTHOR: Zanetti M; Rossi F; Lanza P; Filaci G; Lee R H; Billetta R
CORPORATE SOURCE: Department of Medicine, University of California San Diego 92103-8420.
CONTRACT NUMBER: HD25787 (NICHD)
SOURCE: IMMUNOLOGICAL REVIEWS, **(1992 Dec)** 130 125-50.
Ref: 112
Journal code: GG4; 7702118. ISSN: 0105-2896.
PUB. COUNTRY: Denmark
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, ACADEMIC)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199303
ED Entered STN: 19930402
Last Updated on STN: 19930402
Entered Medline: 19930315

L3 ANSWER 16 OF 17 MEDLINE
ACCESSION NUMBER: 93046712 MEDLINE
DOCUMENT NUMBER: 93046712 PubMed ID: 1423650
TITLE: Protein engineering of antibodies.
AUTHOR: Sandhu J S
CORPORATE SOURCE: Samuel Lunenfeld Research Institute, Mount Sinai Hospital, Toronto, Ontario, Canada.
SOURCE: CRITICAL REVIEWS IN BIOTECHNOLOGY, **(1992)** 12 (5-6) 437-62. Ref: 182
Journal code: CRB; 8505177. ISSN: 0738-8551.
PUB. COUNTRY: United States
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199212
ED Entered STN: 19930122
Last Updated on STN: 19930122
Entered Medline: 19921209

AB This article reviews the technical advances in antibody engineering and the clinical applications of these molecules. Recombinant DNA technology facilitates the construction and expression of engineered antibodies. These novel molecules are designed to meet specific applications. Although genomic and cDNA cloning have been used widely in the past to isolate the relevant antibody V domains, at present, the PCR-based cloning is the preferred system. Bacterial and mammalian expression systems are used commonly for the production of antibodies, antibody fragments, and antibody fusion proteins. A range of chimeric antibodies with murine V domains joined to C regions from human and other species have been produced and found to exhibit the expected binding characteristics and effector functions. Humanized antibodies have been developed to minimize the HAMA response, and bifunctional immunoglobulins are being used in tumor therapy and diagnosis. Single chain antibodies and fusion proteins with antibody specificities jointed to nonimmunoglobulin sequences provide a source of antibody-like molecules with novel properties. The potential applications of minimal recognition units and **antigenized antibodies** are described. Combinatorial libraries produced in bacteriophage present an alternative to hybridomas for the production of antibodies with the desired antigen binding specificities. Future developments in this field are discussed also.

L3 ANSWER 15 OF 17 MEDLINE
ACCESSION NUMBER: 92131139 MEDLINE
DOCUMENT NUMBER: 92131139 PubMed ID: 1370860
TITLE: **Antigenized antibodies**.
AUTHOR: Zanetti M
CORPORATE SOURCE: Department of Medicine, University of California, San Diego
92103.
SOURCE: NATURE, **(1992 Jan 30)** 355 (6359) 476-7.
Journal code: NSC; 0410462. ISSN: 0028-0836.
PUB. COUNTRY: ENGLAND: United Kingdom
Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199203
ED Entered STN: 19920322
Last Updated on STN: 19960129
Entered Medline: 19920303

AB A new process, antigenization of antibodies, consisting of the expression of oligopeptides in the hypervariable loops of an antibody molecule is described. The potential applications of **antigenized antibodies** are discussed.

L3 ANSWER 14 OF 17 BIOSIS COPYRIGHT 2001 BIOSIS
ACCESSION NUMBER: 1992:271438 BIOSIS
DOCUMENT NUMBER: BR42:130388
TITLE: USE OF **ANTIGENIZED ANTIBODIES** CONTAINING CD4 SEQUENCES TO GENERATE ANTIBODIES CONTAINING CD4 SEQUENCES TO GENERATE ANTIBODIES ABLE TO INHIBIT SYNCYTIA FORMATION.
AUTHOR(S): LANZA P; BILLETTA R; ANTONENKO S; ZANETTI M
CORPORATE SOURCE: DEP. MED. CANCER CENTER, UNIV. CALIFORNIA, SAN DIEGO, CALIF. 92103-8420.
SOURCE: MEETING OF THE FEDERATION OF AMERICAN SOCIETIES FOR EXPERIMENTAL BIOLOGY (FASEB), PART 1, ANAHEIM, CALIFORNIA, USA, APRIL 5-9, 1992. FASEB (FED AM SOC EXP BIOL) J, (1992)
6 (4), A1400.
CODEN: FAJOEC. ISSN: 0892-6638.
DOCUMENT TYPE: Conference
FILE SEGMENT: BR; OLD
LANGUAGE: English

L3 ANSWER 11 OF 17 MEDLINE
ACCESSION NUMBER: 93367348 MEDLINE
DOCUMENT NUMBER: 93367348 PubMed ID: 7689625
TITLE: Antigenicity and immunogenicity of **antigenized antibodies**. Studies on B and T cells.
AUTHOR: Billetta R; Zanetti M
CORPORATE SOURCE: Department of Medicine and Cancer Center, University of California, San Diego 92093-0961.
SOURCE: INTERNATIONAL REVIEWS OF IMMUNOLOGY, **(1993)** 10 (2-3) 251-63. Ref: 63
Journal code: IRI; 8712260. ISSN: 0883-0185.
PUB. COUNTRY: Switzerland
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199309
ED Entered STN: 19931015
Last Updated on STN: 19960129
Entered Medline: 19930928

AB This laboratory has been testing the possibility of using the complementarity-determining region (CDR) loops of the antibody molecule to express oligopeptide epitopes in an immunologically-accessible and conformationally-suitable way. The new process consists in grafting peptides epitopes derived from antigens other than immunoglobulins into antibody CDR loops. This process, "antibody antigenization," utilizes the immunoglobulin fold as a scaffold to immobilize and present oligopeptide epitopes to the immune system as the integral part of the immunoglobulin molecule. Here we describe some of the initial results with

L3 ANSWER 4 OF 17 MEDLINE
ACCESSION NUMBER: 97171705 MEDLINE
DOCUMENT NUMBER: 97171705 PubMed ID: 9018877
TITLE: Ligand function of **antigenized antibodies** expressing the RGD motif.
AUTHOR: Billetta R; Lanza P; Zanetti M
CORPORATE SOURCE: Department of Medicine, University of California San Diego,
La Jolla, USA.
CONTRACT NUMBER: AI33204 (NIAID)
SOURCE: CHEMICAL IMMUNOLOGY, **(1997)** 65 159-78. Ref: 53
Journal code: AF7; 9001090. ISSN: 1015-0145.
PUB. COUNTRY: Switzerland
Journal; Article; (JOURNAL ARTICLE)
General Review; (REVIEW)
(REVIEW, TUTORIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199702
ED Entered STN: 19970313
Last Updated on STN: 20000303
Entered Medline: 19970228